

AMENDMENTS TO THE DRAWINGS WITHOUT MARKINGS

IN THE DRAWING:

Figs. 1 and 3 have been amended.

REMARKS

The last Office Action of April 5, 2006 has been carefully considered. Reconsideration of the instant application in view of the foregoing amendments and the following remarks is respectfully requested.

Claims 1-11 are pending in the application. Claims 7-11 have been withdrawn from further consideration. Applicant herewith affirms the withdrawal of claims 7-11 from further consideration. Claim 1 has been amended. Claims 12, 13 have been added. Amendments to the specification have been made. No fee is due.

It is noted that claim 1 is rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 2, 4-6 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Pat. No. 5,776,407 to Takeda.

Claim 3 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Takeda in view of U.S. Pat. No. 6,328,920 to Uchiyama et al.

Applicant has amended claim 1 to clearly distinguish the present invention from Takeda and to address the §112, 2nd para. rejection. More specifically, claim 1 now specifically sets forth the expansion of the cavity during the continued addition of plastic material. The reference to "in particular" and "such as" has been deleted from claim 1. Claims 12 and 13 have been added to recite the subject matter deleted from claim 1.

The present invention, as set forth in claim 1, is directed to a molding process by which in a first phase a cavity of a positive mold is filled with plastic material, and in a second phase further material is fed into the cavity such as to allow the cavity to expand until the cavity has a size for producing a plastic article at a defined thickness during a subsequent compression phase. Claim 1 further recites the presence of a residual distending opening in the compression phase that allows a floating support of the half-mold (7) to maintain the plastic mass in

the cavity under pressure. The Examiner's attention is drawn in this context to paragraph [0037] of the instant specification which has also been amended to label the residual distending opening with reference numeral --15--, as shown in original Fig. 2. Reference numeral --15-- has now also been added to Fig. 3.

The Takeda reference discloses an injection molding process in which a cavity (34) is filled with resin in a filling phase. Following the filling phase is a pressure adjusting step in which resin is continued to be supplied to the cavity. As a result of the addition of further resin, the movable plate (46) on the movable mold (33) moves away from the base member (38) of the fixed mold (32) to thereby provide a pressure equilibrium (see col. 8, lines 28-31).

Takeda differs from the present invention for the following reasons:

Firstly, while Takeda describes an increase in spacing from A1 to A2 (compare Figs 1 and 2) between the movable mold and the fixed mold, the size of the cavity (34), which is defined by the movable mold and the protruding portion (58) of the fixed mold, remains **constant** during the pressure adjusting step. Thus in contrast to the present invention, the cavity does **not** distend or expand during this phase, although the injection mold as such expands.

Secondly, Takeda fails to teach the presence of a residual distending opening that enables the floating support of the movable mold (7). The Examiner appears to have ignored the recital to the residual distending opening in claim 1, despite a general reference to the passage in col. 9, line 19-41. A close reading of this passage merely shows a description of the measuring step in which excess resin inside the mold cavity is returned, when the movable plate is closed against the base member, and a shut-off of the cavity is realized by the protruding portion. There is no presence of a residual distending opening. In fact, Takeda teaches away from the provision of such a residual distending opening because the movable plate and the base member are closed "*until they abut together as shown in FIG. 5*" (col. 9, lines 36, 37). No floating support is described nor possible.

Thirdly, in contrast to the Takeda process, in which resin is returned **from** the cavity during the measuring step, as discussed *supra*, no material is returned

from the cavity in the process of the present invention. As recited in claim 1, plastic material is added until a defined article thickness is reached. Thus, as the positive mold is closed, no material is expelled from the cavity.

For the reasons set forth above, it is applicant's contention that Takeda neither teaches nor suggests the features of the present invention, as recited in claim 1.

As for the rejection of the retained dependent claims, these claims depend on claim 1, share its presumably allowable features, and therefore it is respectfully submitted that these claims should also be allowed.

Applicant has also carefully scrutinized the further cited prior art and finds it without any relevance to the claims on file. It is thus felt that no specific discussion thereof is necessary.

Applicant has further made amendments to Figs. 1 and 3 by correcting a double use of reference numeral "13" to label the "plastic material" as well as "bearings". Reference numeral --14-- has now been used to designate the bearings. New drawing sheets are submitted and labeled "Replacement Sheet" respectively. The specification has been amended to make it consistent with the changes to the drawing. No new matter has been added.

Applicant believes that when reconsidering the claims in the light of the above comments, the Examiner will agree that the invention is in no way properly met or anticipated or even suggested by any of the references however they are considered.

In view of the above presented remarks and amendments, it is respectfully submitted that all claims on file should be considered patentably differentiated over the art and should be allowed.

Applicant further submits a certified copy of the priority document under 35 U.S.C. §119(a)-(d).

Reconsideration and allowance of the present application are respectfully requested.

Should the Examiner consider necessary or desirable any formal changes anywhere in the specification, claims and/or drawing, then it is respectfully requested that such changes be made by Examiner's Amendment, if the Examiner feels this would facilitate passage of the case to issuance. If the Examiner feels that it might be helpful in advancing this case by calling the undersigned, applicant would greatly appreciate such a telephone interview.

Respectfully submitted,

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